REMARKS

The previous oral election of the claims of Group I is hereby affirmed. The non-elected claims of Groups II, III and IV, i.e., claims 17-45 and 51-55, are herewith cancelled without prejudice or disclaimer. The Applicants reserve the right to file at least one divisional application to prosecute these claims to allowance.

Independent claims 10 and 12, and dependent claims 11, 13-16 and 48-50, were rejected under 35 USC 101 as being directed to non-statutory subject matter.

Without expressly or impliedly admitting that these claims are drawn to non-statutory subject matter, as each of claims 10 and 12 recites at least "a graphical user interface", the claims have been amended above to include a recitation of a "computer operable to execute a configurator program; and a graphical user interface coupled to the computer". Support for this amendment can be found in the specification at least at page 5, lines 19-23, and no new matter is added.

Independent claims 10, 12, and dependent claims 11, 13-16 and 48-50, are clearly drawn to statutory subject matter, and the rejection under 35 USC 101 should be removed.

Certain merely clarifying amendments were made to claims 1 and 16.

In the most recent Office Action the Examiner has changed the grounds of rejection in view of the amendment filed with the RCE, and has:

(a) rejected claims 1, 2, 5-7, 12-14, 46, 48, 50, 56 and 57 under 35 U.S.C. §103(a) as being unpatentable over Lee, U.S. Patent No. 6,985,876 in view of the newly cited Gudmundson et al, U.S. Patent No.: 5,907,704;

(b) rejected claims 3, 4, 10 and 11 under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Gudmundson et al. and further in view of Henson, U.S. Patent No. 6,167,383; and

(c) rejected claims 8, 9, 15, 16, 47 and 49 under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Gudmundson et al. and further in view of Motomiya et al., U.S. Patent No. 6,083,267.

These rejections are respectfully disagreed with and are traversed below.

In the rejection of claim 1, the Examiner states that Lee teaches in col. 7, lines 16-23 and 50-55 the display of an image of a customer-selected instrument type in two dimensions and having a coordinate system, and that col. 7, lines 8-9 teach enabling a customer to specify, with the graphical user interface, individual ones of a plurality of instrument parameters and horizontal and vertical locations thereof in the coordinate system. What is actually disclosed at these locations is the following:

> "In one embodiment, on receiving the data and information associated with the customer selections, the e-commerce server 102 may perform further processing to prepare a response or display the current configuration selected. Thus, further processing of the data and information received may include preparing a response to display an image or a drawing to visually depict the current `as ordered` customized product on a customer screen."; and
>
> "In one embodiment, the process of selecting one or more customizable components of a customizable product, then subsequently selecting the customizable component options for the selected customizable component, and then displaying the current configuration, may be an interactive process performed in real-time."; and
>
> "In step 28, in one embodiment, as the user selects or configures the one or more customizable components, i.e., as the user selects customizable component options for each customizable component, the client system 106 submits the selections for the one or more customizable components to the vendor's e-commerce server 102. In step 30, the vendor's e-commerce server 102 receives the data and information associated with the customer selections."

Clearly, there is no mention or suggestion here of "displaying, with a graphical user interface, an image of a user-selected instrument type, **the image shown in two dimensions and having a coordinate system**; enabling the user to specify, with the graphical user interface, individual

ones of a plurality of instrument parameters **and horizontal and vertical locations thereof in the coordinate system** in a self-documenting fashion."

In fact, a word search of Lee fails to find even one occurrence of the words "coordinate", "coordinates" or "axis".

What Figure 4 of Lee shows is a chassis where each of the slots of the chassis may represent a customizable component, and where apparently the user may simply specify what card type will be placed into one or more of the slots of the chassis.

This being true, then Lee also clearly does not disclose or suggest this subject matter in col. 7, lines 13-23, as stated by the Examiner.

Neither does Lee include any disclosure or suggestion of "developing at least one prototype instrument for the customer based on the selected parameters and the self-documentation". The word "prototype" does not appear in Lee. The intent of his system is to instead allow a user to order an existing product, which may be customized by the user prior to purchase, such as by selecting the types and locations of cards to be inserted into the chassis in Figure 4.

It is instructive to note that the embodiment of Lee having to do with the GUI being in the form of an image or graphic that visually depicts a customizable product is in lieu of the GUI being in the form of a menu (see col. 6, lines 30-41) where the user simply clicks check boxes. That is, the functionality of the image-based GUI is apparently no more than the functionality of the menu-based GUI, and is provided simply as an alternative way for the user to select customizable component options for the product to be purchased. As there would be no apparent utility in somehow providing enabling the user with an ability "to specify, with the graphical user interface, individual ones of a plurality of instrument parameters and horizontal and vertical locations thereof in the coordinate system in a self-documenting fashion" in the menu-based approach, clearly the image-based GUI embodiment of Lee does not include this functionality.

The Examiner admits that Lee does not teach enabling the customer to "specify both a horizontal location and a vertical location on the image of at least one of the instrument parameters" and "in response to a selection of at least one type of instrument parameter, updating the displayed image to correspond to the selected instrument parameter", and cites Gudmundson et al. for purportedly teaching this subject matter at col. 41, lines 2-5.

What col. 24, lines 45-65 and col. 41, lines 2-5 of Gudmundson et al. actually teach is the following:

> "The layers view 31 is used to edit Projects a Section at a time through the layers view window 310. With reference to FIG. 3, the basic operation of the layers view window 310 is now described. The layers view window 310 presents a matrix of Media Elements, arranged by Scene order on the horizontal axis and layer order on the vertical. Layer order is the order in which Elements are drawn on the screen, meaning that a Scene is layer order 0, and all the Scene's contained Elements progress in increments of 1 therefrom. Layer order is particularly useful to create the illusion that the two dimensional (X,Y) screen has a depth (Z) dimension, an effect referred to as "2.5D." The layer order can easily be changed by dragging and dropping an Element over another Element, although this may also be accomplished through menus 38. Either way, the user performs such operations as bring to front (make layer order the highest), send to back (make layer order 1), bring forward (exchange layer order with next highest) or bring backward (exchange layer order with next lowest). Scenes are assigned layer order 0, which cannot be changed by the author, and are thus always in the background."; and

> "A Point Variable stores point values (e.g., (25,45)). In FIG. 12(g), one can see a data entry area 1123 comprising an entry position for two integers, the x-coordinate of the point and the y-coordinate of the point."

The foregoing two paragraphs are in the context of the application development system described by Gudmundson et al. For example, and referring to various paragraphs in the Summary section beginning in col. 7, the disclosure of Gudmundson et al. is concerned with the following:

> "The present invention encompasses an application development system that enables its users to create reusable "object containers" merely by defining links among instantiated objects. Employing a technique referred to herein as

> Hierarchical Encapsulation, the system automatically isolates the external dependencies of the object containers created by its users. This isolation of external dependencies resolves the problems addressed above regarding selective reusability of "user objects," thereby facilitating the development of applications of increasing complexity.
>
> Objects contained within other objects are not "hidden" within or tightly coupled to their object container environments. Rather, they are loosely coupled with those environments, and therefore can more easily be reused in other environments. By virtue of being contained within another object, the contained object automatically is afforded access to its environment. Its object container is, in essence, an "environmental frame of reference" for the objects it contains. For example, unless overridden by the author, objects automatically receive messages sent to their object container. They automatically can access data known to their object container. Their position is even determined relative to their object container.
>
> Moreover, objects are decoupled from their characteristics. By defining two distinct types of objects (one of which modifies the characteristics of the other), and loosely coupling (i.e., temporarily linking) these two types of objects, the system provides a mechanism for authors to modify an object's characteristics merely by deeming one object to be contained within another. Removing that object from its container removes that characteristic. In this manner, authors easily can modify an object's characteristics and reuse it in other environments.
>
> In one embodiment described herein, the system is optimized for the development of interactive multimedia applications or "titles." This multimedia authoring system provides its users ("authors") with a visual authoring interface that requires little, if any, scripting or programming. The system employs a form of object-based authoring in which authors create and configure instantiated objects directly, typically by "dragging and dropping" icons and configuring dialog boxes. The system provides for significant reusability of object containers by utilizing the Structural and Behavioral Hierarchies to isolate the external dependencies of Elements and Behaviors. In essence, the system automatically "encapsulates" an author's object containers. Once encapsulated, they can be reused in other "environments." Moreover, by loosely coupling an Element to the Modifiers it contains, the system enables authors to modify their Elements so as to "inherit" and "disinherit" characteristics while maintaining an evolving hierarchical encapsulation vis-a-vis the Element's external environment."

The "Point Variable" noted by the Examiner in col. 41, lines 2-5, is simply one of a plurality of variables, such as Integer Variables and String Variables, that form a part of the application development system of Gudmundson et al.

Col. 49, lines 17-24, relates to the core system architecture, and states:

> "There is certain functionality available to the author only in Edit Mode, such as access to windows, dialogs, etc. However, there is very little difference between Edit Mode and Runtime Mode in the current embodiment. In both modes, certain background Environment Messages (not visible to the author) are issued by system 100, which trigger Modifiers to perform certain functions, such as updating Element positions on-screen. Certain functionality accessible to authors through Modifiers also is realized during Edit Mode. For example, the system updates an Element's graphic attributes in accordance with the author's configuration of the Graphic Modifier, and steps through an author-specified path, configured via the Path Motion Modifier. Most Runtime functionality, however (such as the sending of messages throughout the Structural and Behavioral Hierarchies to trigger Modifiers), is suppressed during Runtime Mode."

The various examples given by Gudmundson et al. beginning in col. 72 relate to creating snake and fish animations, and a windowing system.

Clearly, there is no suggestion present to somehow modify the graphic-based e-commerce system configuration and ordering function of Lee (which is used in lieu of a simple menu with check boxes) with the application development system proposed by Gudmundson et al. Further, and even if the proposed combination were somehow accomplished (without admitting that this is suggested) it is not seen what utility the use of the Point Variable function of Gudmundson et al. would have in the system of Lee, which merely provides a user with an ability to select what type of module or card will be installed in a particular chassis slot. Clearly, there is no suggestion, as in claim 1, of:

> "enabling the user to **specify**, with the graphical user interface, individual ones of a plurality of instrument parameters **and horizontal and vertical locations thereof in the coordinate system** in a self-documenting fashion; wherein enabling comprises **enabling the user to specify both a horizontal location and a vertical location on the image of at least one of the instrument parameters**; in response to a selection of at least one type of instrument parameter, **updating the displayed image to correspond to the selected instrument parameter at the specified horizontal and vertical location in the coordinate system**; and **developing at least one prototype instrument** based on the selected parameters

and the self-documentation" (emphasis added).

As should be apparent, there is no need in the system of Lee to provide the user with an ability to "specify both a horizontal location and a vertical location on the image of at least one of the instrument parameters" when the user orders a configurable product.

In that claim 1 is certainly not rendered unpatentable by the Examiner's proposed combination of Lee with Gudmundson et al., then all claims that depend from claim 1 are also not rendered unpatentable by this proposed combination.

The arguments made above with respect to claim 1 are applicable as well to claim 5. Further in this regard, it is noted that the word "gauge" does not appear in either Lee or Gudmundson et al., although the Examiner states that it is disclosed in these references. Further, the "customizable product" mentioned in col. 2 of Lee, when read in the context of the overall disclosure of Lee, is a measurement system with plug-in data acquisition board, conditioning boards, etc., (Figure 4) or a computer system (Figure 6), and the user is simply given the opportunity to select predetermined component modules to be included in the purchased product (which can be accomplished either by the use of a menu with check boxes, or by the use of the image-based GUI).

The Examiner refers to col. 51, lines 9-28, of Gudmundson et al. for teaching a user employing a drag and drop technique to move "configurable gauge functions in at least two dimensions of the image of the selected gauge type". This characterization of the teachings of Gudmundson et al. is not accurate. What col. 51 states instead is the following:

> "The drag and drop module 43 provide the visual paradigm for transferring, e.g., Elements and Modifiers from one part of a Project to another, or even to other Projects, by pressing the mouse 6 button down on the object and dragging it to its desired destination. The implementation of drag and drop behavior is well-known in the art. The consequences of particular drag and drop actions, such as Adoption, Transplantation and hierarchical object linking, are handled by particular core modules, as discussed below. The drag and drop module 43 will indicate a disallowed action by moving an outline of the object's icon back to its

original position."

Clearly there is no express disclosure or suggestion, either alone or in combination with Lee, of at least :

> "**displaying an image of a user-selected gauge type** comprising a set of configurable gauge functions located at a plurality of locations in the image;
> displaying in association with the selected gauge type a set of visual aids corresponding to defined functions;
> **enabling the user to specify individual ones of the configurable gauge functions using said set of visual aids and a drag and drop technique for selecting individual visual aids from the set of visual aids and associating a selected visual aid with a configurable gauge function, wherein associating also associates the configurable gauge function with a defined function corresponding to the selected visual aid, and wherein enabling comprises enabling the user to move using the drag and drop technique at least one of the configurable gauge functions in at least two dimensions on the image of the selected gauge type**; and
> outputting a data file for use in manufacturing at least one sample of the selected gauge type in accordance with the configurable gauge functions corresponding to the selected visual aids and associated defined functions" (emphasis added).

In that claim 5 is clearly patentable over the proposed combination of Lee with Gudmundson et al., then all claims that depend from claim 5 are also not rendered unpatentable by this proposed combination.

The arguments made above with respect to claim 5 apply as well to claim 12, which is also allowable over these references, as are all claim dependent therefrom. For example, and referring to dependent claims 46 and 48, (e.g., "wherein the data file comprises a **mapping data file configured to instruct a controller to map between gauge inputs and associated ones of the gauge functions**"), the disclosure of Gudmundson et al. in col. 50, lines 57-62 is directed instead to:

> "The authoring GUI support 40 controls various aspects of the graphical user interface, including the features of media linking 41, messaging log 42, drag and drop 43 and morphing 44.

> The media linking module 41 controls mapping of external media 2 resources to Elements within a Project. It also permits "thumbnails", which are draft mode, low resolution representations of such media that are substituted for the actual media. This saves space and thus makes Projects more transportable, a useful feature during title development. Moreover, a title could even be executed over a network (e.g., the Internet) with significant savings in bandwidth due to the replacement of large media files."

Clearly, there is no express disclosure or suggestion of the claimed subject matter in this portion of Gudmundson et al. that was noted by the Examiner.

The arguments made above apply equally and at least for the same reasons to independent claims 56 and 57, at least for the reason that there is no mention of specified gauge functions and locations, a gauge controller, and so forth in either of Lee or Gudmundson et al.

Further with regard to claim 3, what is recited is the following:

> "A method to specify a gauge, comprising:
> in response to a user accessing a server coupled to a data communications network, displaying an image of a user-selected gauge type, the image shown in at least two dimensions and comprising a plurality of at least two-dimensional visual aids, the plurality of at least two-dimensional visual aids placed at a plurality of vertical and horizontal locations in the image, at least two of the plurality of at least two-dimensional visual aids having different shapes in at least two dimensions and having different vertical locations on the image;
> enabling the user to specify individual ones of gauge functions of the visual aids using a plurality of drop down menus; and
> in response to a selection of at least one type of gauge function for one of the visual aids, changing the displayed image to correspond to the selected gauge function."

It was shown above that the proposed combination of Lee and Gudmundson et al. does not disclose the subject matter that the Examiner states is disclosed. The addition of Henson to this proposed combination does not cure these deficiencies at least for the reason that there is no disclosure or implication in the references or their proposed combination of at least the subject matter of "the image shown in at least two dimensions and comprising a plurality of at least two-dimensional visual aids, the plurality of at least two-dimensional visual aids placed at a

plurality of vertical and horizontal locations in the image, at least two of the plurality of at least two-dimensional visual aids having different shapes in at least two dimensions and having different vertical locations on the image". Applicants respectfully submit that Lee combined with Gudmundson et al. and Henson does not create images having a number of two or more dimensional visual aids at a number of different vertical and horizontal locations in the image, where at least two of the plurality of two or more dimensional visual aids having different shapes in two or more dimensions and having different vertical locations on the image.

Further, the Examiner's statement that Henson teaches "enabling the user to specify individual ones of gauge functions using a plurality of drop down menus" is clearly incorrect. The cited portion of Henson in col. 9 is devoid of any disclosure of gauge function specification using drop down menus. Instructively, a word search of Henson fails to find even one occurrence of the word "gauge". The patent instead is directed towards a user configuring a computer system on-line and purchasing the configured computer system.

Therefore, the combination of these references does disclose at least the subject matter alleged by the Examiner. For at least these reasons, claims 3 and 4 are patentable over the proposed combination of Lee, Gudmundson et al. and Henson.

Amended claim 10 recites the following:

> A tool operable to specify a gauge, said tool comprising;
>
> a computer operable to execute a configurator program; and
>
> a graphical user interface coupled to the computer for displaying an image of a selected gauge type, the image shown in at least two dimensions and comprising a plurality of visual aids, the plurality of visual aids placed at a plurality of vertical and horizontal locations in the image, the graphical user interface further for enabling a user of the web tool to specify individual ones of gauge functions of the visual aids using at least one drop down menu, wherein the graphical user interface enables specification by the user of both a horizontal location and a vertical location in the image of at least one of the instrument parameters, the graphical user interface further operable, in response to a selection of at least one

type of gauge function for one of the visual aids, to change the displayed image to correspond to the selected gauge function.

There is no disclosure or implication in Lee modified with Gudmundson et al. and Henson of at least the subject matter of "the graphical user interface enables specification by the user of both a horizontal location and a vertical location in the image of at least one of the instrument parameters". Therefore, claims 10 and 11 are also clearly allowable.

The Examiner's rejection of claims 8, 9, 15, 47 and 49 under 35 U.S.C. §103(a) as being obvious over Lee in combination with Gudmundson et al. and Motomiya is also traversed.

Claims 8 and 9 depend from claim 5, which was shown above to be directed to non-obvious and patentable subject matter. Consequently, claims 8 and 9 are patentable for at least the reasons given above with respect to claim 5.

Claims 15 and 16 depend from claim 12, which was also shown above to be directed to non-obvious and patentable subject matter. Consequently, claims 15 and 16 are patentable for at least the reasons given above with respect to claim 12. Claims 47 and 49 depend from claims 5 and 12, respectively, which were also shown above to be patentable. Consequently, claims 47 and 49 are patentable for at least the reasons given above with respect to claims 5 and 12.

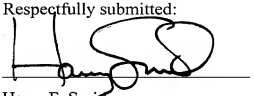
Clearly, it should be apparent that the Examiner has not cited references that when combined (without expressly or impliedly admitting that they are combinable) would suggest the subject matter of at least the independent claims to one skilled in the art. As a result, all of the pending claims are allowable over the references cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections.

The additional cited (and not relied upon) U.S. Patent 6,492,993 (Livesey et al.) and Application 2003/0140349 (Kato et al.) were also reviewed. The fence modeling system of Livesey et al. and the display apparatus of Kato et al. are not seen to disclose subject matter that would detrimentally affect the patentability of the pending claims, either alone or in combination with

the prior art that was cited and applied by the Examiner.

An early notification of the allowability of the now pending claims is earnestly solicited.

Respectfully submitted:



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